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| APPLICATION NO   |      | FILING DATE  | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |  |
|--|------|--------------|----------------------|-------------------------|------------------|--|
| 10/633,580   |      | 08/05/2003   | Motoko Tanishima     | 108066-00096            | 5431             |  |
| 4372   | 7590 | 02/18/2005   |                      | EXAMINER                |                  |  |
|  |      | NTNER PLOTKI | PHAM, LY D           |                         |                  |  |
| 1050 CONNECTICUT AVENUE, N.W.<br>SUITE 400<br>WASHINGTON, DC 20036 |      |              |                      | ART UNIT                | PAPER NUMBER     |  |
|  |      |              |                      | 2827                    |                  |  |
|  |      |              |                      | DATE MAILED: 02/18/2005 |                  |  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|  | A - II - AI - BI -  |  |  |  |  |  |  |
|--|---|--|--|--|--|--|--|
|  | Application No.   | Applicant(s)   |  |  |  |  |  |
| Office Action Summary  | 10/633,580  | TANISHIMA ET AL.   |  |  |  |  |  |
| Office Action Summary  | Examiner  | Art Unit   |  |  |  |  |  |
| 7. 444.00 0.77   | Ly D. Pham  | 2827   |  |  |  |  |  |
| The MAILING DATE of this communication app Period for Reply  | ears on the cover sheet with the c  | orrespondence address  |  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period w Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).              | 36(a). In no event, however, may a reply be time within the statutory minimum of thirty (30) days will apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE   | nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133). |  |  |  |  |  |
| Status   |   |  |  |  |  |  |  |
| 1) Responsive to communication(s) filed on 05 August 2003.   |   |  |  |  |  |  |  |
| ·= · ·   | action is non-final.  |  |  |  |  |  |  |
| ,—   | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.   |  |  |  |  |  |  |
| Disposition of Claims  |   |  |  |  |  |  |  |
| 4) ☑ Claim(s) 1-11 is/are pending in the application. 4a) Of the above claim(s) is/are withdray 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☑ Claim(s) 1-11 are subject to restriction and/or expressions.   | vn from consideration.  |  |  |  |  |  |  |
| Application Papers   |   |  |  |  |  |  |  |
| 9) The specification is objected to by the Examiner.   |   |  |  |  |  |  |  |
| ,  | The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). |  |  |  |  |  |  |
|  |   |  |  |  |  |  |  |
| 11) The oath or declaration is objected to by the Ex   |   |  |  |  |  |  |  |
| Priority under 35 U.S.C. § 119   |   |  |  |  |  |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No.</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul> |   |  |  |  |  |  |  |
| Attachment(s)  |   |  |  |  |  |  |  |
| 1) Notice of References Cited (PTO-892)  | 4) Interview Summary  |  |  |  |  |  |  |
| <ul> <li>2) Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)</li> <li>Paper No(s)/Mail Date</li> </ul>   | Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:   | ate Patent Application (PTO-152)   |  |  |  |  |  |

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## **DETAILED ACTION**

## Election/Restrictions

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

Group I, drawn to claims 1 – 5, which claim a memory circuit comprising: a regular memory cell array; a redundant memory cell array ...; a redundant replacement memory ...; and a pre-charge circuit ..., wherein depending on the data on the failed portion, the failed portion in the regular memory cell array is replaced with the redundant memory cell array, while a pre-charge path is closed which leads to the pre-charge cicuit corresponding to the failed operation.

Group II, drawn to claims 6 – 11, which claim a memory circuit comprising: a regular memory cell array; a redundant memory cell array ...; and a redundant replacement memory ..., wherein the redundant replacement memory includes a redundant cell holding failed portion data, and a redundant latch circuit for latching the failed portion data held by the redundant cell, ....

2. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claim is generic.

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3. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

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- 4. Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).
- 5. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

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## Conclusion

6. A shortened statutory period for response to this action is set to expire 1 (one) month and 0 (zero) day from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned (see MPEP 710.02(b)).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ly D. Pham whose telephone number is 571-272-1793. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoai Ho can be reached on 571-272-1777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ly Pham (

February 14, 2005

HOAIHO PRIMARY EXAMINER

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